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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 302417WO/RD	**FOR FURTHER ACTION**	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/GB 02/05588	International filing date *(day/month/year)* 10.12.2002	Priority date *(day/month/year)* 10.12.2002
International Patent Classification (IPC) or both national classification and IPC G06F17/60		
Applicant ACCENTURE GLOBAL SERVICES GMBH et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

   ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of 7 sheets.

3. This report contains indications relating to the following items:

I	☒	Basis of the opinion
II	☐	Priority
III	☒	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV	☐	Lack of unity of invention
V	☒	Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI	☐	Certain documents cited
VII	☐	Certain defects in the international application
VIII	☐	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
07.06.2004	27.05.2005
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Schneider, M Telephone No. +49 89 2399-7509

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB 02/05588

I. Basis of the report

1. With regard to the **elements** of the international application *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17))*:

Description, Pages

1-32 as originally filed

Claims, Numbers

1-39 received on 21.03.2005 with letter of 17.03.2005

Drawings, Sheets

1-5 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

   (Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

   ☐ the entire international application,

   ☒ claims Nos. 1-9,27

   because:

   ☒ the said international application, or the said claims Nos. 1-9,27 relate to the following subject matter which does not require an international preliminary examination (specify):

   see separate sheet

   ☐ the description, claims or drawings *(indicate particular elements below)* or said claims Nos. are so unclear that no meaningful opinion could be formed *(specify)*:

   ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

   ☐ no international search report has been established for the said claims Nos.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

   ☐ the written form has not been furnished or does not comply with the Standard.

   ☐ the computer readable form has not been furnished or does not comply with the Standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	10-26,28-39
	No:	Claims	
Inventive step (IS)	Yes:	Claims	
	No:	Claims	10-26,28-39
Industrial applicability (IA)	Yes:	Claims	10-26,28-39
	No:	Claims	

2. Citations and explanations

see separate sheet

Re III

Apparently, claim 1 and its dependent claims 2-9 and 27 describe a method as such of defining a multi-dimensional data structure, consisting of steps which might be performed by a database expert (human). It is clear from the description that these steps should be supported by a computer implemented tool. Therefore, the method of generating a multi-dimensional data structure as such has to be separated from the features of the tool supporting the performance of the method.

The method as such, which is the only subject matter of claim 1 and its dependent claims, could be performed with or without tools. For instance, it could be executed using paper and pencil, a text editor, and so on. A method which may be interpreted as to only consist of instructions for a human must be considered as describing a mental act in the field of modelling database systems, for which according to Rule 67.1 (iii) no International Preliminary Examination Authority should be requested to carry out an International Preliminary Examination.

Re V

The subject matter of claims 10-26,28-39 seems not to be inventive in the sense of the PCT.

In these claims it is mentioned that the steps of claim 1 and its dependent claims should be performed by a tool. For evaluating whether the subject matter of claims 10-26,28-39 is inventive it is only necessary to consider whether the features of these claims regarding the implementation of the method of claim 1 and its dependent claims can be regarded as to involve an inventive step, because the features of claim 1 and its dependent claims describe a mental act and thus lay outside of a technical field. Instead, those features can be considered as forming part of the technical problem which is posed to a skilled person.

The application as a whole (see particular the description, page 7, first paragraph, page 9, second paragraph, pages 20 and 21, page 28, first paragraph) do not contain such disclosure to allow an interpretation that the steps are fully automated. Therefore, it must be assumed that what is meant is that there is some computer support for these steps. However, to support the steps of claim 1 and its dependent claims by some hardware and

software system would, as such, be obvious. As well, the particular way of using software and hardware of the prior art, as shown in the claims (and the application as cited above) appears to be within the range of ordinary proceeding.

CLAIMS:

1. A method for generating a multi-dimensional data structure in order to access data associated with a plurality of data sources, said plurality of data sources having a different number of dimensions than said multi-dimensional data structure, said method comprising the steps of:

defining at least one dimension, a dimension value, an attribute and an attribute value for said multi-dimensional data structure;

creating a plurality of combinations, wherein each combination defines a data item, and wherein said multi-dimensional data structure is defined by a first set of data items and each of the plurality of data sources is defined by a second set of data items;

mapping data items in the first set of data items in said multi-dimensional data structure to corresponding data items in the second set of data items in each data source;

determining a location of the gap, the gap comprising a difference between said first set of data items and a second set of data items.

2. A method according to claim 1, further comprising bridging the gap.

3. The method of claim 1 or claim 2, wherein said gap is bridged at said plurality of data sources.

4. The method of any preceding claim, wherein said attribute is assigned to a single dimension.

5. The method of claim 4, wherein each said dimension value is associated with a dimension and said attribute value is associated with an attribute.

6. The method of any preceding claim, wherein said step of creating a combination includes the step of linking two or more dimensions for said combination created.

7. The method of claim 6, wherein said step of mapping includes the step of mapping a combination for a dimension value to a source structure.

8. The method of any preceding claim, further comprising the step of creating a mapping file for historic data conversion.

9. The method of any preceding claim, further comprising the step of generating a report, wherein said report is a combination, a hierarchy or a mapping report.

10. A program storage device readable by a machine, tangibly embodying a program of instructions executable by a machine, said instructions for generating a new multi-dimensional chart of accounts that is used to access data associated with a plurality of charts of accounts, wherein said plurality of charts of accounts has a different number of dimensions than said new multi-dimensional chart of accounts, the program storage device executing the steps of:

defining at least one dimension, a dimension value, an attribute and an attribute value for said new multi-dimensional chart of accounts;

creating a plurality of combinations, wherein each combination defines a data item, and wherein said multi-dimensional data structure is defined by a first set of data items and each of said plurality of data sources is defined by a second set of data items;

mapping data items in the first set of data items in said new multi-dimensional chart of accounts to corresponding data items in the second set of data items in each chart of accounts; and

determining a location of a gap comprising a difference between said first set of data items and a second set of data items.

11. The program storage device of claim 10, wherein the program storage device further executes the step of bridging the gap.

12. The program storage device of claim 10 or claim 11, wherein said gap is bridged at said plurality of charts of accounts.

13. The program storage device of any one of claims 10 to 12, wherein said attribute is assigned to a single dimension.

14. The program storage device of claim 13, wherein said dimension value is associated with a dimension and said attribute value is associated with an attribute.

15. The program storage device of claim 14, wherein said dimension is at least one of a dimension for a product, an industry classification and a maturity.

16. The program storage device of claim 15, wherein said dimension value associated with said product dimension is one of corporate loans, mortgages, home credits and personal loans.

17. The program storage device of any one of claims 10 to 16, wherein said step of creating combinations includes linking two or more dimensions for each combination created.

18. The program storage device of claim 17, wherein said step of mapping includes the step of mapping each combination for a dimension value to said plurality of charts of accounts.

19. The program storage device of any one of claims 10 to 18, further comprising the step of creating a mapping file for historic data conversion.

20. The program storage device of any one of claims 10 to 19, further comprising the step of generating a report, wherein said report is a combination, a hierarchy or a mapping report.

21. A tool for generating a multi-dimensional data structure for integrating data from a plurality of data sources, said plurality of data sources having a different number of dimensions than said multi-dimensional data structure, said tool comprising:

a relational database;

a processor;

a data structure generator, wherein said data structure generator defines at least one dimension, a dimension value, an attribute and an attribute value;

a combination module for creating and retrieving a plurality of combinations, wherein a combination defines a data item and wherein said multi-

dimensional data structure is defined by a first set of data items and said plurality of data sources is defined by a second set of data items;

a mapping module for mapping data items in the first set of data items in the multi-dimensional data structure to corresponding data items in the second set of data items in said plurality of data sources; and

a gap detector for detecting a gap comprising a difference between said first set of data items and said second set of data items.

22. The tool of claim 21, wherein said tool is in communication with said plurality of data sources via an electronic network.

23. The tool of claim 21 or claim 22, wherein said gaps are bridged at said plurality of data sources.

24. The tool of any one of claims 21 to 23, wherein said combination module creates a combination by linking two or more dimensions.

25. The tool of any one of claims 21 to 24, further comprising a mapping file module for creating a mapping file used for historic data conversion.

26. The tool of any one of claims 21 to 25, further comprising a report generator for generating a report, wherein said report is a combination, a hierarchy or a mapping report.

27. A method according to any of claims 2 to 9, further comprising documenting how the gap was bridged.

28. A method according to any of claims 1 to 9 or 27, wherein the multi-dimensional data structure comprises a centralized database.

29. A method according to claim 28, wherein the centralized database is located at a central office.

30. A program storage device according to any of claims 11 to 20, further comprising documenting how the gap was bridged.

31. A program storage device according to any of claims 11 to 20 or 30, wherein the multi-dimensional data structure comprises a centralized database.

32. A program storage device according to claim 31, wherein the centralized database is located at a central office.

33. A tool according to any of claims 21 to 26, wherein the gap detector further comprises a gap resolver for facilitating bridging of the gap.

34. A tool according to claim 33, wherein the gap detector and resolver document how gaps are bridged.

35. A tool according to any of claims 21 to 26, 33 or 34, wherein the multi-dimensional data structure comprises a centralized database.

36. A tool according to claim 35, wherein the centralized database is located at a central office.

37. A method according to any of claims 2 to 9 or 27 to 29, wherein the gap is bridged by providing further data items from the plurality of data sources.

38. A program storage device according to any of claims 11 to 20 or 30 to 32, wherein the gap is bridged by providing further data items from the plurality of data sources.

39. A tool according to any of claims 21 to 26 or 33 to 36, wherein the gap is bridged by providing further data items from the plurality of data sources.